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IN THE

Supreme Court of the United States

QUANTA COMPUTER, INC., *et al.*,

Petitioners,

v.

LG ELECTRONICS, INC.,

Respondent.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

BRIEF OF TECHNOLOGY PROPERTIES LIMITED AS *AMICUS CURIAE* IN SUPPORT OF RESPONDENT

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INTEREST OF AMICUS CURIAE

Technology Properties Limited ("TPL") was founded in Silicon Valley in 1988.[1] Since then TPL has supported the development of numerous ground-breaking technologies invented by individuals needing financial support to pursue their inventive abilities outside of an employment relationship. TPL offers partnerships that allow individual innovators to maintain ownership and the benefits of the fruits of their labor and ingenuity that would otherwise not be possible.

One such inventor, Chuck Moore, invented and developed a series of microprocessor technology innovations. With the support of TPL, a series of patents was granted for Mr. Moore's microprocessor technology. The patented technology has been adopted by the industry and is fundamental to the architecture and structure of today's microprocessor devices.

The value of the Moore microprocessor technology has been recognized by some of the world's preeminent developers of microprocessors and the products they enable, who have purchased licenses to Moore's microprocessor technology. The fruits of these licensing transactions are fueling another round of innovation as Mr. Moore and TPL have jointly funded the development of revolutionary new microprocessor technology with the proceeds of the licensing transactions.

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1. Pursuant to Rule 37.6, TPL certifies no counsel for a party authored this brief in whole or in part, and no counsel or party made a monetary contribution intended to fund the preparation or submission of this brief. No person other than TPL, its members or its counsel made a monetary contribution to its preparation or submission. The parties have consented to the filing of this brief by submitting letters of blanket consent.

TPL has a substantial interest in this case through its patent licensing practices. The success of TPL's alliances with inventors such as Mr. Moore is possible by structuring licensing relationships that enable the development and dissemination of innovative technologies and products. Like many other patent holders in the computer and electronics industries, TPL licenses the patented technology of its inventor partners through a two-tier licensing program, of which Respondent LG Electronics, Inc.'s ("LGE") licensing arrangement is a variant. In one form, TPL sometimes issues *royalty-free* licenses to make and sell products covered by component patents (such as patents covering microprocessor technology) to component and microchip manufacturers who do not receive the right to convey use rights to their customers, and separately issues *royalty bearing* use licenses to system manufacturers. These two-tier licensing arrangements permit inventors to fully benefit from their patents, and provides funding that enables further technological innovation.

Petitioners in this appeal seek a broad ruling, under which a sale of patented component would exhaust all of a patent owner's patents. Such a ruling would not only be inappropriate, but could have serious and unintended adverse consequences, not just for TPL, but for the computer and electronics industries in general, where two-tier licensing is common.

SUMMARY OF ARGUMENT

Petitioners' argument to this Court constitutes nothing less than an attack on the prevalent patent licensing model found throughout the computer and electronics industries. Fortunately, however, this appeal may be resolved in a much simpler, more straightforward manner, with far less far-reaching and extreme consequences, than the complicated, radical, and legally unsound approach proposed by Petitioners.

A standard licensing arrangement found in technology-based industries is the two-tier model. Under the two-tier model, a patent owner enters into separate license agreements with component manufacturers and end product (system) manufacturers. The LGE licensing arrangement at issue in this case is a type of a two-tier licensing program. There are many benefits and efficiencies accomplished by these licensing arrangements. For example, these programs provide the patentee with greater quality control in finished products incorporating the patentee's technology. Unless the patentee has the ability to decide to which consumer or industrial product manufacturers it will license the use of its technology, it cannot exercise quality control over the end product. Two-tier licensing programs also allow the patent owner to distinguish among different uses for a patented component among different end products, and to adjust prices in different market segments depending on the value of the patented technology in that market segment. This permits wider and more efficient distribution of patented technology at costs tailored to actual use of the technology. Two-tier licensing arrangements also allow patentees to obtain royalties

on their system and method patents as well as their component patents. A patentee's ability to recover royalties on its entire patent portfolio is critical to the ability of computer and electronics companies to continue to develop innovative technology.

Petitioners seek to have all two-tier licensing models declared invalid by endorsing an unwarranted extension of the patent exhaustion doctrine, arguing that the sale of a patented component prevents a patent owner from entering into two-tier licensing arrangements that enforces a patentee's rights against both component and end product manufacturers. In LGE's case, Petitioners' arguments are, however, defeated by 35 U.S.C. § 271(d), which expressly provides that the two-tier licensing arrangement exemplified by LGE's license with Intel cannot serve as a basis to deny relief to LGE for Petitioners' infringement of LGE's system patents.

The legislative history of section 271(d) reveals that the statute was intended to ensure that a patent owner's right to enforce a patent is not compromised under circumstances that implicate the doctrine of contributory infringement. Section 271(d) accordingly permits a patentee to derive revenue from or license acts that would constitute contributory infringement if performed by someone who is not the patentee and is not otherwise authorized to perform those acts. In this case, the doctrine of contributory infringement arises because the sale of the Intel components to Petitioners would constitute contributory infringement of LGE's system patents if the sales were made by a party other than Intel. Section 271(d)(1) thus provides that the fact that LGE obtains revenue from Intel's authorized sale of

components to Petitioners (sales that would constitute contributory infringement under LGE's system patents if LGE had not licensed and consented to Intel's sale of those components) cannot serve to deny relief for or defeat LGE's claims against Petitioners for infringement of LGE's system patents. Similarly, section 271(d)(2) provides that LGE cannot be denied relief for Petitioners' infringement based upon Intel's licensed sales of its components to Petitioners. Section 271(d) thus clearly permits two-tier licensing arrangements such as LGE's, by establishing that the sale of patented components cannot operate to deny relief for infringement of system patents.

Moreover, patent exhaustion does not invalidate two-tier licensing for other reasons. For example, patent exhaustion is premised on improper "extension of the patent monopoly"; however, two-tier licensing is *within* the patent monopoly, whether implemented by licensing patented or contributorily infringing components separately from patented systems, or by licensing make and sell rights separately from use rights. Similarly, patent exhaustion is premised on a patent owner receiving his *entire* reward for the patented invention upon first sale — unlike *all* two-tier licensing, particularly where manufacture and sale of a patented component is licensed *royalty free*, separate from royalty bearing use rights.

ARGUMENT

I. This Court Should Avoid The Broad Ruling That Petitioners Seek And That Would Jeopardize The Ability Of Technology Companies To Engage In Efficient Licensing Programs

A. LGE's Licensing Program Is A Variation Of Widespread Licensing Arrangements Within The Electronics And Computer Industries

Petitioners seek a far-reaching holding that threatens to create radical change within the technology industries. The prevalent licensing arrangement in the electronics and computer industries is a two-tier model, where a patent owner enters into separate license agreements with component manufacturers and sub-system or end product (system) manufacturers. This allows the patent owner to obtain the full reward to which it is entitled under its full patent portfolio, and permits more efficient pricing schemes as well as greater quality control over the use of the patented technology. Petitioners seek to have all such licensing models declared invalid by seeking an unwarranted extension of the patent exhaustion doctrine and failing to recognize limits imposed by Congress' enactment of 35 U.S.C. § 271(d) in 1952. The ruling sought by Petitioners would create havoc in the electronics and computer industries and would potentially discourage further innovation and technological advances in those fields.

The LGE licensing arrangement is an example of two-tier licensing. At the first tier, LGE licensed Intel to manufacture and sell components such as

microprocessors and chipsets, components that are protected under component patents owned by LGE. *See* Respondent's Brief at 1, 2. At the second tier, LGE required purchasers of the Intel components to obtain from LGE a license to LGE's system and method patents if the purchasers wished to use LGE's system and method patents. LGE accomplished this through provisions in its license with Intel that forbade Intel to convey any system or method patent licenses to its customers, and required Intel to notify prospective purchasers that they would not receive a license from Intel to combine the components with non-Intel components. JA164, JA176-77, JA198.

Relying heavily on this Court's decisions in *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502 (1917), and *United States v. Univis Lens Co.*, 316 U.S. 241 (1942), Petitioners argue that LGE's licensing arrangement is improper because it potentially allows LGE to obtain "double royalties." *See, e.g.*, Petitioners' Brief at 8-10, 16, 48-49, 51-53. As discussed below, by attempting to extend this Court's precedents on exhaustion far beyond established boundaries and failing to recognize limits imposed by Congress' enactment of section 271(d)(1)-(3) in 1952, Petitioners seek to invalidate one of if not all of the most pervasive and efficient licensing programs being used within the technological industries.

B. Licensing Programs In Technological Industries Tend To Be Two-Tiered Arrangements Based On Differences Between Components, Systems, And Methods

Present-day manufacturing processes in the electronics and computer industries are strikingly more complex than those involved in the Court's exhaustion cases from 65 to 180 years ago. Today, the manufacture of intricate and complex computer and electronics systems involve multiple stages, from transistor to ultimate consumer product, with different manufacturers contributing to different stages of the overall process. Even at the component level, multiple technologies will be employed to create a multi-purpose microchip. These components may then be purchased and combined into subsystems by different manufacturers, and still other manufacturers may combine components and subsystems into consumer end products. Each new step or stage implicates new and different inventions and, often, different patents.[2]

Today's two-tier licensing programs sometimes involve different kinds of patents that cover processes

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2. There are thousands of patents directed to the parts of the computer system and the system itself that can be found by searching the patents on the website of United States Patent and Trademark Office. For example, U.S. Patent Nos. 6,014,718, 6,675,248 and 6,950,440 are all patents directed to a computer system. Examples of patents for chipset and microprocessors that may be used in the computer systems are U.S. Patent Nos. 6,112,308, 6,636,962 and 7,266,641. Examples of the transistors that may be used as basic components in computer systems are 6,037,629, 6,610,566 and 6,919,605.

or products used or created at different stages of the manufacturing process. Modern inventions often have multiple patentable features. This is especially true in the electronics industry where a computer system, a chipset used in that computer system, a chip incorporated into that chipset, and a transistor on that chip may all be independently patentable. In addition, a process claim may be directed to a method of making an independently patentable product or a method of using an independently patentable product. United States Patent and Trademark Office, United States Department of Commerce, *Manual of Patent Examining Procedure*, § 806.05(e)-(f) (2006).

Patent claims thus are often drafted, or separate patent applications are filed, to encompass all of the separately patentable features of the invention. Patents are drafted to cover an invention regarding a particular, useful component (referred to herein as "component patents"). Separate patents may then be drafted as "system patents," which encompass systems or subsystems that combine independently patentable components and create novel interactions and that are patentable in their own right:

> Another type of claim often found in computer-related patents is a system claim, which is merely an apparatus claim describing a system of interconnected components. System claims also have their own characteristics, *such as not covering individual components of the system*. Thus, system claims would *not directly cover* the activity of a developer

> making a *component* of the system, *even if that component is key to the system.*

E. Robert Yoches, *Licensing Patents for Software and Computer Technology*, Intellectual Property Today, Oct. 1994, at 5 (emphasis added).

Component patents and system patents thus constitute separate inventions, even if a patented system incorporates a patented component. *See, e.g., Mercoid Corp. v. Mid-Continental Inv. Co.*, 320 U.S. 661, 667-68 (1944) ("Whether the parts are new or old, the combination is the invention and it is distinct from any of them."); *Leeds & Catlin Co. v. Victor Talking Mach. Co.*, 213 U.S. 301, 318 (1909) ("A combination is a union of elements, which may be partly old and partly new, or wholly old or wholly new. But, whether new or old, the combination is . . . an invention . . . distinct from them."); *Priebe & Sons v. Hunt*, 188 F.2d 880, 884-85 (8th Cir. 1951) (claims directed to machine and claims directed to components of machine are distinct and independently enforceable). *Cf. KSR Int'l Co. v. Teleflex Inc.*, __ U.S. __, 127 S. Ct. 1727, 1739-43 (2007) (discussing standard for granting a patent based on combination of previously-known elements embodying a different invention than the prior inventions).[3]

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3. Petitioners try to erase the distinction between component patents and system patents by suggesting that the invention in LGE's patents is wholly contained on the components sold by Intel, and the system patents accordingly contain nothing novel and do not constitute actual inventions. Petitioners' Brief at 6-7, 39. *See Aro Mfg. Co. v. Convertible Top*

(Cont'd)

By the same token, contemporary licensing programs which license use rights separately from make and sell rights recognize that the right to make and sell components, such as microprocessors and other microchips, involve one skill set (e.g. the considerable skill of manufacturing inexpensive and reliable integrated circuits) which is considerably different from the skill of designing and manufacturing commercially desirable consumer and industrial products having the price, form and function most desired across a broad market segment, or in a particular market niche. Commonly, many of the functions built into the integrated circuit are functions specified by or developed at the instance of the system maker.

Similarly, contemporary licensing programs sometimes issue separate licenses for different categories of patents to different types of manufacturers within the manufacturing chain, so that transistor manufacturers receive a license to patents governing transistors, component manufacturers are licensed under component patents, and system and subsystem manufacturers are granted licenses to system and/or method patents. Richard H. Stern, the authority upon whom Petitioners place their greatest reliance, *see* Petitioners' Brief at 13, 28, 31-32, *approves* of two-tier

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(Cont'd)

Replacement Co., 365 U.S. 336, 345-46 (1961) ("The basic fallacy in respondent's position is that it requires the ascribing to one element of the patented combination the status of the patented invention itself."). If Petitioners wished to challenge the validity of LGE's system patents, it should have brought those challenges in the trial court. It is far too late to try to insinuate invalidity of the system patents on appeal.

licensing arrangements such as LGE's. Stern actually endorses multi-tiered licensing programs with limited licenses as a way to accomplish the *same commercial objectives* without risking exhaustion. He writes that instead of using post-sale restrictions, patentees can "restrict customers' use of patented products" by first "rely[ing] on different claims-drafting techniques" such as patenting "both the process and the apparatus of the invention," and second, "structur[ing] transactions on the basis of limited licenses of such claims. *Appropriate claims-drafting techniques coupled with careful structuring of transactions may permit counsel to avoid many of the legal problems that occur because of the exhaustion doctrine.*"[4]

But, why should it be necessary to burden desirable commercial objectives with the necessity of "appropriate claims drafting techniques" and "careful structuring of transactions" merely to evade the exhaustion doctrine? Exhaustion is premised upon the evils of "*extending* the patent monopoly," whereas two-tier licensing operates "*within* the patent monopoly." Congress itself specifically approved of allowing inventors to derive revenue from acts and licenses *within* the patent monopoly (i.e. "which would otherwise constitute contributory infringement") when it enacted Section 271(d) in 1952 — a fact never noted by Stern and others who see exhaustion as a legal threat to two-tier licensing.

Component or microchip manufacturers thus may be separately licensed to the patent owners' component

4. Richard H. Stern, *Post-Sale Patent Restrictions After Mallinckrodt - An Idea in Search of Definition*, 5 Alb. L. J. Sci. & Tech. at 1, 22 & n.76 (1994).

patents, or enter into patent cross-licenses. Like LGE's license with Intel, these licenses make clear that the component manufacturer may not convey a system or method license to purchasers of the manufacturers' components. *See* JA164, JA176-77, JA 198. There are various ways of accomplishing this. The license may limit the licensee to selling its components only to persons that have already obtained a license from the patentee to practice the system patents. The LGE-Intel license is another variation, where the component licensee is required to put the purchaser on notice that purchase of the component does not license the purchaser to practice the patentee's system, in effect informing the purchaser that it must seek a license from the patentee before it can combine the component with other components in a system.

Two-tier licensing arrangements may also distinguish between component patent and method patents. Richard Stern argues that *manufacture and sale* of a component or machine patented under a component or system patent may be legitimately sold independently from a license to *use* the component or machine under a separate method patent[5] — a practice is legally indistinguishable from licensing manufacture and sale separately from use, since both are "*within* the patent monopoly." Stern refers to licensing practices in the textile machinery industry that have been upheld as enforceable, where purchasers of machines for making yarn are put on notice that the payment for the machines does not include a license to practice the method patent to make yarn with the machines (even though the

5. Stern, *supra* note 4, at 24-27.

machines have no other substantial use). The purchaser thus is required to obtain a separate license to the method patent. Stern declares that such an arrangement would be enforceable, because it does not implicate the exhaustion doctrine:[6]

> Probably, a court would uphold such an arrangement as legitimate under the prior exhaustion doctrine case law .... The patentee imposes no explicit restriction on customers' use of their property. Rather, the patentee merely "fails to grant a license" under the patentee's separate method patent. . . . The case law in the main indicates that, in such circumstances, *the exhaustion doctrine is inapplicable.*

Id. at 25. Stern then goes on to provide another, hypothetical example of a permissible licensing practice, where a microprocessor might be subject to both a product patent and a method patent. Stern states that it would be perfectly legitimate for the seller of the microprocessor to require the purchaser to enter into a license to use the microprocessor under the method patent. *See id.* at 26. Thus does Petitioners' favorite authority become a champion of the very licensing arrangement used by LGE in this action.

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6. *Id.* at 24 & n.84 (citing to *In re Yarn Processing Patent Validity Litig.*, 541 F.2d 1127, 1135 (5th Cir. 1976); *Duplan Corp. v. Deering Milliken, Inc.*, 444 F. Supp. 648, 671-72 (D.S.C. 1977), *aff'd*, 594 F.2d 979 (4th Cir. 1979)). *See also Cold Metal Process Co. v. McLouth Steel Corp.*, 41 F. Supp. 487 (E.D. Mich. 1941), *aff'd on other grounds*, 126 F.2d 185 (6th Cir. 1942).

Examples of companies in the electronics and computer industries using a two-tier licensing program are abundant. One patentee, for example, uses a two-tier licensing model pursuant to which there are two classes of licensees: (1) Semiconductor manufacturers (referred to as "implementation licensees") who incorporate the patented technology onto their integrated circuits, and who have licenses to that technology; and (2) manufacturers of consumer electronics products (referred to as "system licensees") who purchase the integrated circuits from the implementation licensees, and who incorporate the circuits into consumer end products. *See* Dolby Labs., Inc., Annual Report (Form 10-K), at 5 (Sept. 28, 2007). Another patent holder employs "a two-tiered system whereby semiconductor manufacturers are licensed to build and sell semiconductor implementations of the Company's technology solutions," and also licenses consumer product manufacturers for *use* of the technology. *See* SRS Labs. Inc., Annual Report (Form 10-K), at 6 (Dec. 31, 2000). Another company employs a multi-tiered licensing program that grants licenses to use different portions of its intellectual property portfolio, including licenses to wireless technology, and different licenses to products that incorporate the patented technology. *See* Qualcomm Inc., Annual Report (Form 10-K), at 85 (Sept. 30, 2007). Similarly, another company has a multi-tier licensing program that distinguishes among component versus consumer product manufacturers. *See* Immersion Corp., Annual Report (Form 10K), at 7 (Mar. 16, 2007). Still another company provides a royalty free field-of-use license to the component manufactures specifically restricting their license to the intermediate component market and to provide their products *only* to the end-user manufacturers who are

already licensees or are "qualified purchasers", *i.e.* persons who are informed that they must also obtain a license.[7]

There are many advantages and efficiencies accomplished by two-tier licensing programs. These programs provide the patentee with greater quality control in finished products incorporating the patentee's technology. This is important, because poor quality or defective end products that are introduced into the consumer market may harm the desirability of the patentee's technology in the marketplace. With the introduction of new electronics or computer products, there are often different kinds of competing technologies that produce the same kind of end product. If the patentee does not have the ability to decide to which consumer product manufacturers it will license to its system patents, it cannot exercise any kind of quality control over the end product. If, as a result, poor quality products flood the market, consumers may judge the technology itself to be defective. The ability of a patentee to guide the use of its inventions in the consumer product market has been much discussed in the literature concerning licensing of intellectual property:

> In the process of granting licenses to others, a firm can achieve some degree of control not only

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7. TPL uses such an arrangement. Patent law has long affirmed the patentee's right to restrict a license to a particular field or use without triggering patent exhaustion. *General Talking Pictures Corp. v. Western Elec. Co.*, 305 U.S. 124, 126-127 (1938) ("[W]here a patented invention is applicable to different uses, the owner of the patent may legally restrict a licensee to a particular field and exclude him from others. * * * That a restrictive license is legal seems clear.").

> over the exploitation of its own innovations, but also over the direction of development in its industry. . . . [A]n innovator can to some extent control the evolution of its intellectual property through negotiated limitations in the licensing agreement. Through . . . contractual limitations it is able to negotiate, a firm can influence how other companies use its technology in the marketplace, and hence how that technology develops.

Jay Dratler, Jr., *Licensing of Intellectual Property* at 1-27–1-28 (2007). A patentee can only accomplish this if it is empowered to license end product manufacturers separately under its system and method patents, independent of its licensing of component manufacturers.

Two-tier licensing programs also allow a patentee to distinguish among different uses for a patented component among different systems or end products, and charge higher royalties for high-demand uses, and lower royalties for low-demand uses. Such a licensing program allows the patent owner to adjust prices among different market segments depending on the value of the patented technology to the systems manufacturer. The patent owner accordingly should be permitted to set up his licensing program to recover different royalties from different market segments. *See* Stern, *Post-Sale Patent Restrictions After Mallinckrodt*, 5 Alb. L. J. Sci. & Tech. at 15-17 (1994) (discussing how the same technology may have different values in different market niches based on varying uses of the technology and the degree to which the range of the technology's abilities are exploited, and the utility of permitting a

patent owner to charge different rates depending on the nature and the extent of the use of the patented technology).

This is a highly efficient result, as it allows the patentee to recover maximum royalties for the system patents. At the same time, it also would make the component available to all users at rates that are tailored to the use that the purchasers make of the components, which most likely would not happen if the patentee could not distinguish among purchasers. *See* Thomas C. Meyers, *Field-of-Use Restrictions as Procompetitive Elements in Patent and Know-How Licensing Agreements in the United States and the European Communities*, 12 Nw. J. Int'l L. & Bus. 364, 367-71 (1991).

These licensing arrangements also allow patentees to obtain royalties on their system and method patents as well as their component patents. A patentee's ability to recover royalties on its various component, system, and method patents is critical to the ability of computer and electronics companies to continue to develop innovative technology. Participants in the computer and electronics industries incur considerable expense to develop new technology that advances the abilities, speed, and convenience of their products. There is an enormous cost in research and development, which includes the research and development of ideas that ultimately prove to be unworkable. In addition, only a small percentage of completed inventions are ultimately granted patent protection. Patent royalties thus must recoup not only the cost of the development of the patented invention itself, but also the cost of failed attempts to develop and patent

technology. Restricting patent owners' ability to recover royalties by limiting the ability to obtain royalties to a single tier in the manufacturing chain and to a single class of patents would discourage and inhibit innovation in technology-based industries.

Petitioners object to two-tier licensing arrangements mainly due to the notice provision in the LGE-Intel license. As Petitioners concede, if Intel had been authorized only to sell its chips to LGE licensees, there would have been no exhaustion against sales to non-licensees (because such sales would not have been authorized), and LGE accordingly would be permitted to enforce its patent rights against either Intel or the non-licensed customer. *See* Petitioners' Brief at 51 ("[I]f LGE wanted for some reason to divide its royalty between Intel and Quanta, it could have authorized Intel to sell only to purchasers with a prior license from LGE. A sale in violation of such a restriction would entitle LGE to sue Intel for infringement, and perhaps the buyer as well."). Permitting this licensing model (authorizing sale of chips only to persons who have first purchased a license), while forbidding its marketplace equivalent (authorizing sale of chips to persons who have been notified that they need a license to incorporate those chips into a system) would be nonsensical.

Petitioners' specious distinction would also inhibit efficient dissemination of the technology in the marketplace. Forbidding Intel from selling to persons other than those already licensed by LGE would make dissemination of the technology dependant upon LGE's clairvoyant abilities to determine who may become an end-user manufacturer and would require LGE to embark upon the expensive task of licensing without knowing where

there is market demand for the technology. Allowing LGE to license *after* persons with notice of LGE's patent rights have adopted the technology, and determined its worth to them in the marketplace, is a far more efficient way to disseminate the technology.

II. LGE's Licensing Program Is Permissible Under 35 U.S.C. § 271(d), Which Provides That The Sale Of Intel Components Does Not Prohibit LGE From Obtaining Relief For Petitioners' Infringement Of LGE's System Patents

The two-tier licensing arrangement exemplified by LGE's license with Intel and the license that LGE requires Petitioners to obtain in order to practice LGE's system patents are expressly permitted by Congress' enchantment of section 271(d) of Title 35 in 1952. Section 271(d) provides in relevant part:

> No patent owner otherwise entitled to relief for infringement or contributory infringement of a patent shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of his having done one or more of the following: (1) derived revenue from acts which if performed by another without his consent would constitute contributory infringement of the patent; (2) licensed or authorized another to perform acts which if performed without his consent would constitute contributory infringement of the patent. . . .

Subsections (1) and (2) of section 271(d) provide that the licensed sale of contributorily infringing components

under a two-tier licensing arrangement may not constitute grounds for denying relief for infringement of the system patents that are the subject of the second tier of such licensing programs. Applying the facts of this action to the language of section 271(d)(1), for example, reveals that if LGE obtains revenue from Intel's authorized sale of components to Petitioners (sales that would constitute contributory infringement under LGE's system patents if LGE had not licensed and consented to Intel's sale of those components) this cannot serve to deny relief for or defeat LGE's claims against Petitioners for infringement of LGE's system patents. LGE's ability to obtain royalties under its license with Intel, and its plan to demand royalties from Petitioners under its system patents, does not constitute an illegal extension of either its component or system patents.

Section 271(d)(2) similarly approves LGE's two-tiered licensing arrangement. Petitioners argue that LGE, having licensed Intel to make and sell components containing LGE's patented technology, must be precluded from demanding that Quanta also obtain a license in order to practice LGE's system patents. Petitioners' Brief at 12, 38-41, 44. Section 271(d)(2), however, explicitly provides that such an argument cannot prevail to deny LGE relief for Quanta's infringement of LGE's system patents. Section 271(d)(2) provides that LGE cannot be denied relief from Petitioners' infringement of LGE's system patents because of Intel's licensed sales of its components (which would have constituted contributory infringement if they had not been authorized by LGE). Subsection (2) thus clearly allows for two-tiered licensing arrangements such as LGE's.

It is important to recognize the specific scope of section 271(d). The statute is meant to affirm the unique doctrine of contributory infringement, which concerns acts that, if not performed by a patentee or its authorized licensees, would constitute contributory infringement. Thus the language of section 271(d)(1)-(2) permits a patentee to derive revenue from or license acts that would constitute contributory infringement if performed by someone who is not the patentee and is not authorized to perform the acts. The history leading up to the passage of section 271(d) confirms this focus and intent of that statute.

The enactment of section 271(d) was largely a reaction to the Court's much-criticized opinion in *Mercoid Corp. v. Mid-Continent Inv. Co.*, 320 US 661 (1944). *Mercoid* condemned the patent owner's attempt to derive revenue from acts which, if performed by another without his authority, would have constituted contributory infringement. The patentee in *Mercoid* owned a system patent to a heating system, and licensed another entity, Minneapolis-Honeywell, to make and sell combustion stoker switches used in the heating systems. 320 U.S. at 662. Minneapolis-Honeywell made clear in its advertising that the right to use the heating system was only granted to the user when the stoker switches were purchased from Minneapolis-Honeywell. *Id.* at 663. Although the combustion stoker switches themselves were not patented, there was no use for them other than in the patented heating system. *Id.* at 664. Any unauthorized sale of stoker switches for use in the patented heating systems thus constituted contributory infringement. *Id.* at 668. The patent owner in *Mercoid* accordingly sued an unauthorized manufacturer of stoker

switches for contributory infringement for the sale of those components. The Court, however, believed that the patent owner's attempt to obtain royalties through its sale of unpatented stoker switches constituted an impermissible extension of the patent monopoly, and held that the patent owner was precluded from obtaining relief for contributory infringement. *Id.* at 666-68.

Mercoid came under heavy criticism. The problem with the decision was that the Court objected to a licensing arrangement that it considered an attempt to *extend the patent monopoly* to an unpatented component, namely the stoker switches. *See id.* at 667-68. This, despite the fact that the stoker switches were wholly *within the patent monopoly* since, as the Court acknowledged, unauthorized sale of the stoker switches constituted contributory infringement, and that the patent owner could have enjoined the unauthorized manufacturer of the stoker switches from selling them. *Id.* at 668. While purportedly recognizing the doctrine of contributory infringement, the Court in fact partially overruled *Leeds & Catlin v. Victor Talking Machine Co.*, 213 U.S. 325 (1909), which the Court described as holding that "he who sells an unpatented part of a combination patent for use in the assembled machine may be guilty of contributory infringement." *Mercoid*, 320 U.S. at 668. Justice Douglas's further statement, "[w]hat residuum [of contributory infringement] may be left we need not stop to consider," *id.*, created further doubt as to the scope of contributory infringement, even as to whether it still existed.

Although the Court was concerned about the patent owner extending its patent monopoly to unpatented

components, the patent owner, practically speaking, did in fact already have patent rights to the stoker switches because the contributory infringement doctrine allowed the patent owner to prevent others from selling them. *See* Donald S. Chisum, *Chisum on Patents: A Treatise on the Law of Patentability, Validity, and Infringement*, at § 17.02[5] (2005). The fact that the patent owner received royalties on the sale of the stoker switches therefore cannot be said to have improperly extend the patent right. *Mercoid* and the doctrine of contributory infringement were irreconcilable. Giles S. Rich, *Infringement Under Section 271 of the Patent Act of 1952*, 35 J. Patent Off. Soc'y 476, 490-91 (1953); Hearings on H. R. 3760 before Subcommittee No. 3 of the House Committee on the Judiciary, 82d Cong., 1st Sess., 152 (1951) (testimony of Giles S. Rich).

In enacting section 271(d), Congress intended to overrule *Mercoid* and to reestablish and expand the doctrine of contributory infringement. Hearings on H. R. 3760 before Subcommittee No. 3 of the House Committee on the Judiciary, 82d Cong., 1st Sess., 151-152, 173-174 (1951) (testimony of Giles S. Rich). This Court has observed that "the relevant legislative materials abundantly demonstrate an intent both to change the law and to *expand significantly the ability of patent owners to protect their rights against contributory infringement.*" *Dawson Chemical Co. v. Rohm & Haas Co.*, 448. U.S. 176 (1980) (emphasis added); *see generally id.* at 199-215 (conducting an extensive analysis of § 271's legislative history). Thus sections 271(d)(1)-(3) are specifically drafted to ensure that a patent owner's right to enforce a patent is not compromised under circumstances that implicate the doctrine of contributory infringement. Section 271(d)

uses broad permissive language, which is consistent with the legislative intent to "significantly expand" patent owners' ability to protect their rights against contributory infringers. *Dawson Chemical Co.*, 448. U.S. at 203. Giles S. Rich, the drafter of section 271, has written that the "net effect" of the statute is to "render [patents] more effective as protection for inventions." Rich, 35 J. Patent Off. Soc'y at 499.

Against this backdrop, it can be seen why section 271(d) specifically applies to two-tier licensing arrangements such as the one involved in this case. In this case, the contributory infringement doctrine arises because the sale of the Intel components would constitute contributory infringement of LGE's system patents if the sales were made by a party other than Intel. *See* 35 U.S.C. § 271(c) (2006). The clear intent of section 271(d) is that the sale of the contributorily infringing components cannot operate to deny relief for infringement of system patents. Petitioners' argument that sale of the component constitutes exhaustion the LGE's patents is *precisely* the kind of argument that section 271(d) was meant to prevent.[8]

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8. The United States recognizes the applicability of section 271(d)(2) when it acknowledges that "[s]ection 271(d) might be construed to entitle a patentee in respondent's position to relief." Brief for the United States as Amicus Curiae On Petition for a Writ of Certiorari to the United States Court of Appeals For the Federal Circuit at 20 n.7. Section 271(d)'s applicability is confirmed by the government's flawed attempt to explain why the statute does *not* apply. The government first argues that the statute only "addresses the relationship between the doctrines of patent misuse and contributory infringement." *Id.* Section 271(d), however, is not

(Cont'd)

III. The *Univis* Exhaustion Doctrine Does Not And Should Not Be Applied To Situations Where The Patent Owner's Entire Reward For The Invention Is Not Derived From The First Authorized Sale

The *Univis* exhaustion doctrine is premised upon an assumption that the patent owner has received the entire reward he is entitled to upon the first authorized sale of the patented product. This was true as a matter of fact in the *Univis* case, but is a false premise when applied as a universal truth to the modern business environment.

(Cont'd)
limited only to patent misuse, but is rather much broader, stating that no patent owner "shall be *denied relief* or deemed guilty of misuse or *illegal extension of the patent right*" for having done one of the acts enumerated in the statute.

The government next maintains that section 271(d) cannot be deemed to apply to any situation involving a claim of patent exhaustion because "[a] patentee whose infringement claim is barred by principles of patent exhaustion is not 'otherwise entitled to relief,' and therefore obtains no benefit from Section 271(d)." *Id.* This argument, however, not only distorts the language of the statute, but would also render the entire section a nullity. The word "otherwise" must have a referent – there must be something explicit to which the sense of "other than" applies. "Otherwise" here clearly refers to the second half of the section, and the subparts set out therein. The proper understanding of the phrase "otherwise entitled to relief for infringement" is that the patent owner must be entitled to relief for infringement *apart from* or *other than* the circumstances subsequently set forth in the subsections. Those subsections set out circumstances that had previously been understood to constitute grounds to deny relief for infringement. For the government to argue that LGE is not "otherwise entitled to relief" based on conduct that clearly falls within subsections (d)(1) and (d)(2) would defeat the very purpose of those subsections.

A. The *Univis* Exhaustion Doctrine Is Expressly Limited To Situations Where The Patent Owner's Entire Reward Is Derived From The First Authorized Sale.

Petitioners conveniently construe *Univis* – the authority upon which they so heavily rely, and which animates nearly their entire argument – to hold that patent exhaustion *necessarily* flows from the authorized sale of an article covered by a patent. This purpose-driven interpretation of *Univis* is not only designed to provide Petitioners a free ride on patented technology, it is also incorrect as a matter of law and entirely illogical.

In *Univis*, the Court concluded that the patent owner's rights were exhausted after sale of lens blanks destined for grinding into finished lenses in accordance with the patent owner's patent. In reaching this conclusion, the Court first concluded the patent owner had elected to derive its *entire reward* from *sale* of the lens blanks:

> The rewards of the [patent owner] for the exploitation of the patents and the patented lenses are derived *wholly* from the sale by the Lens Company of the blanks, from the proceeds of which the . . . royalty is paid.

Univis, 316 U.S. at 244 (emphasis added). The Court then supported its decision with case authorities which either held or assumed that the purpose of the patent law is fulfilled "when the patentee *has received his reward* for the use of his invention [upon] *sale of the article*."

> Our decisions have uniformly recognized that the purpose of the patent law is fulfilled with respect to any particular article when the patentee has received his reward for the use of his invention by the sale of the article, and that once that purpose is realized the patent law affords no basis for restraining the use and enjoyment of the thing sold.

Univis, 316 U.S. at 251 (emphasis added).

Given the narrow underpinnings of *Univis*, Petitioners are wrong to argue that exhaustion *necessarily* flows from *any* authorized sale of an article covered by a patent. The most that can be said is that *Univis* holds that patent exhaustion applies to sales of patented articles where the patent owner has elected to derive his entire reward for the invention from the first authorized sale of the patented product, and has therefore relinquished all patent control over the product.

B. The *Univis* Exhaustion Doctrine Should Not Be Extended Beyond The Facts Of *Univis*.

1. The *Univis* Exhaustion Doctrine Should Not Be Extended To Situations Where The Patent Owner Derives No Reward From The First Authorized Sale

The *Univis* exhaustion doctrine should not be extended to situations where the patent owner derives no reward whatsoever from the first authorized sale. *See United States v. Masonite Corp.*, 316 U.S. 265, 278 (1942) ("The test has been whether or not there has been such a disposition of the article that it may fairly be said that the patentee has received his reward for the use of that article.").

This can easily be illustrated by reference to the following hypothetical. Assume that a patent owner in LGE's position licenses Intel to *make and sell* LGE patented chips *royalty free*, expecting to collect its *entire reward* for *use* of its patented chip only from downstream manufacturers who incorporate those chips into finished consumer products (such as televisions, DVD players, computer printers, etc.) and industrial products (such as servers, manufacturing equipment, quality control equipment, etc.), with adequate pre-purchase notice that they do not receive a license to use the chip. In such a case, the patent owner unlike *Univis* would have received *absolutely no reward* from authorized manufacture and sale of the chips.

This is precisely the type of two-tier licensing program that TPL and numerous others employ for reasons which are perfectly legitimate and easily understood. Licensing the manufacture and sale of the chips for free eliminates the possibility that the chip maker might someday be sued for infringement. This is favored for judicial economy reasons since it eliminates potential litigation between the patent owner and the chip maker. This is also favored in the marketplace, where modern electronics product manufacturing chains are multi-level and sophisticated in that they involve innumerable components provided by many different suppliers, and the ultimate end product manufacturer requires assurance from all suppliers in the chain that use of the suppliers' products does not expose the ultimate manufacturer to non-indemnified patent infringement liability. By granting a royalty-free license to the chip maker, the patent owner has eliminated a potential blockage in the manufacturing chain and,

thereby has facilitated the free flow of patented technology to the ultimate consumer.

This license marketing approach also facilitates dissemination of the patented technology in the marketplace, where those who incorporate those chips into consumer or industrial products can decide whether the technology embodied in the chip has merit for their particular products. Royalty-free dissemination of the patented chip in the marketplace thus allows adoption of the patented technology to depend upon actual market demand, rather than upon the patent owner's willingness and ability to conduct and execute an expensive and risky pre-adoption licensing campaign, without knowing whether or not market demand will develop in the future. Allowing patent owners to license *after* persons with notice of LGE's patent rights have adopted the technology and determined its worth to them in the marketplace is a far more efficient way to disseminate the technology.

This strategy also allows the value (and therefore royalty price) of the patented technology to be easily assigned from market to market based on actual experience, rather than setting royalties based on speculation. Moreover, this value may vary greatly from market to market. A chip having cutting edge wireless technology may have an exceedingly high value in the market for wireless access points (where the latest wireless technology may be a critical selling point), but less value in the market for wireless computer printers (where the printing capability is the critical selling point, and the specific wireless technology employed is comparatively unimportant).

This approach also allows the royalties for use of the technology to be borne by the person to whom it has the greatest value. It might make no sense for a chip maker who might otherwise sell a chip for a $20 to be economically and unrealistically burdened by an obligation pay a $50 royalty for incorporating a feature which has no use to the chip maker, when this royalty may be willingly borne by a person who incorporates the chip into a high definition television which sells for $1000 and to whom the feature has important market value. This strategy thus results in a self-adjusting pricing structure that depends upon actual supply and demand, rather than an artificial royalty structure based upon what a patent owner and chipmaker might envision and mutually agree upon as the future value of the technology.

This licensing arrangement also permits the patent owner to implement and enforce quality control measures upon the system maker. Absent the right to directly license those who incorporate patented chips into their consumer and industrial products, the patent owner has no contractual license relationship within which he may negotiate with the end product manufacturer to implement contractual quality control measures. In the absence of privity of contract, the patent owner has no ability to implement quality control measures at the end product level.

2. The *Univis* Exhaustion Doctrine Should Not Be Extended To Situations Where, As In The Present Case, The Patent Owner Derives Some Compensation But Not The Entire Reward From The First Authorized Sale

Modern two-tier licensing programs include variations on the scenario described in the preceding section. Within the microchip industry, for example, some patent owners license chipmaker royalty-free, while others receive some minimal compensation from the chipmaker. Thus in some instances, the chipmaker pays a relatively small transaction fee intended to compensate the patent owner for the not insignificant cost of the license transaction itself, such as attorney fees and travel expenses associated with face-to-face license negotiations. Fees of this sort do not compensate the patent owner for use of the invention and are not a "reward for use of the invention."

In other instances (such as in the present case), the chipmaker and the patent owner cross license each other's patents. In this case, the patent owner receives consideration for the right to make and sell chips covered by the patent owner's patents in the right to make and sell chips covered by the cross-licensee's patents. Where the patent owner conditions its cross-license upon a requirement that the cross-licensee notify all purchasers that they do not receive a license under the patent owner's patents, however, it is abundantly clear that all parties understand that the patent owner does not intend the cross-license rights to constitute its entire compensation for use of the patented invention.

In still other instances, the chipmaker may pay a relatively small royalty for sale of the chip. Once again, however, where the license agreement specifies that the chipmaker must notify all purchasers that they do not receive a license under the patent owner's patents, all parties plainly understand that the patent owner does not receive his or her entire compensation for use of the patented invention upon sale of the chips.

Just as exhaustion should not apply when a patentee enters into a royalty-free license with a the chipmaker, so too exhaustion should not apply when the patent owner receives some compensation from the chipmaker, but such compensation is plainly understood by all to not constitute the entire compensation for use of the invention.

C. Permitting Two-Tier Licensing Does Not Involve Unreasonable Restraint On Alienation, Threats To Competition, Or Entrapment.

Modern two-tier licensing arrangements of the type described herein do not involve unreasonable restraints on alienation or anti-competitive restraints. For example, none of these licensing arrangements involve tying restraints which would prevent or discourage any person from purchasing products (other than those protected by the patent owner's patent rights) supplied by the patent owner's competitors. Similarly, none of these licensing arrangements require any person to participate in a regimented market, by agreeing, for example, to minimum resale prices.

By the same token, there is no entrapment of microchip customers since all receive advance notice that their purchases do not carry with them licenses to use the patent owner's patents. Persons who purchase the chips receive fair notice of the patents, and of the fact that they do not receive a license under those patents. Purchasers such as Petitioners have complete freedom of action not to purchase the chips, to purchase the chips and take a license, or to purchase the chips and contest infringement, validity or enforceability of the patents. Given these commercially fair and reasonable options, Petitioners ought not be given a free ride just because the patent owner has granted a limited license to their chip vendor.

CONCLUSION

Petitioners have attacked LGE's two-tier licensing practice of issuing separate licenses to chipmakers and system makers. Over the course of the petition and merits briefs, Petitioners have made wide ranging assertions of law and fact utilizing patent exhaustion in an unprecedented and never intended fashion to directly attack and indirectly threaten industry-wide two-tier licensing practices at the core.

This has generated great concern that the Court may issue broad rulings that could have substantial unintended consequences to companies like TPL, who rely upon patent licensing to generate revenue for continued product development.

TPL has been particularly concerned that Petitioners, the Government and even LGE, as well as the authorities, like *Univis* and Stern, which animate

their positions and arguments, are wholly without regard to Congress's post-*Univis* enactment of Section 271(d), which has direct bearing on the specifics of this case, and profound policy implications for two-tier licensing in general.

Congress intended Section 271(d) to reverse *Mercoid*, which was based on *Univis*, and also expand the patent owner's rights to license and derive revenues for his or her patent rights in situations involving "products whose unauthorized sale" would constitute contributory infringement. This was a direct refutation of *Mercoid* which held that such revenue deriving activities were "extensions of the patent monopoly" because those products were "unpatented" despite the fact that they were in fact protected by the patent law and therefore actually *within* the "patent monopoly."

In the face of Congress' enactment of statutes giving patent owner's broad rights to derive revenues including license revenues from activities that are *within* the "patent monopoly," Petitioners' position should be soundly rejected, not only with regard to the specific facts at hand, but broadly insofar as it purports to attack two-tier licensing practices within the "patent monopoly," whether in the form of separate licenses for system and component patents, separate licenses for make and sell rights versus use rights to components, separate licenses for components whose use would contributorily infringe system patents if unauthorized, or otherwise. All are *within* the patent monopoly and should not give rise to judicial extinguishment of patent rights.

Respectfully submitted,

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